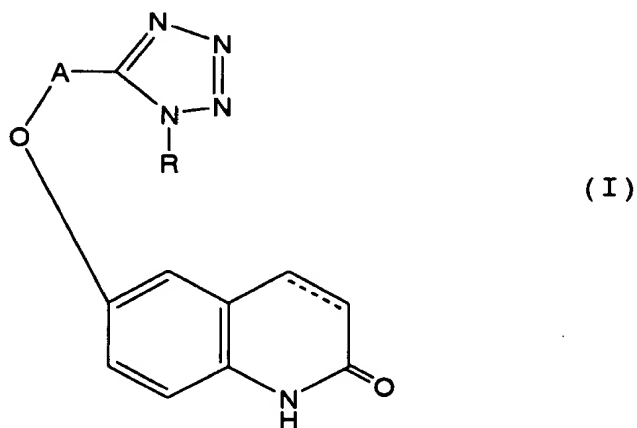
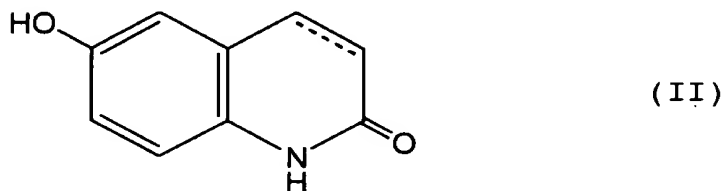


CLAIMS

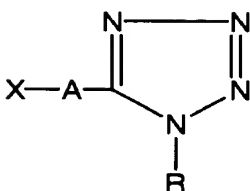
1. A process for producing a carbostyryl derivative represented by the following general formula (I):



wherein A represents a lower alkylene group, R represents a cycloalkyl group, and the bond between the 3- and 4-positions of the carbostyryl skeleton represents a single bond or a double bond, which comprises reacting a carbostyryl derivative represented by the following general formula (II):



wherein the bond between the 3- and 4-positions of the carbostyryl skeleton is as defined above, with a tetrazole derivative represented by the following general formula (III):



(III)

wherein X represents a halogen atom or a group causing the same substitution reaction as that caused by a halogen atom, and A and R are as defined above, in the presence of a phase transfer catalyst.

2. A process for producing a carbostyryl derivative according to Claim 1, wherein the reaction is carried out at a reaction temperature not lower than the ambient temperature and not higher than 200°C, in a solvent, in the presence of a basic compound.

3. A process for producing a carbostyryl derivative according to Claim 2, wherein the reaction temperature is 50°C to 150°C.

4. A process for producing a carbostyryl derivative according to Claim 2, wherein the solvent used is a mixture consisting of an aromatic hydrocarbon and water or water alone, and said basic compound is an inorganic base.

5. A process for producing a carbostyryl derivative according to Claim 4, wherein said aromatic hydrocarbon is benzene, o-dichlorobenzene, chlorobenzene, toluene or xylene, and said inorganic base is potassium carbonate, cesium carbonate or lithium carbonate.

6. A process for producing a carbostyryl

derivative according to Claim 1, wherein X in the tetrazole derivative represented by general formula (III) is a halogen atom.

7. A process for producing a carbostyryl derivative according to Claim 1, wherein X in the tetrazole derivative represented by general formula (III) is a group causing the same substitution reaction as that caused by a halogen atom, and said group is a lower alkanesulfonyloxy group, an arylsulfonyloxy group or an aralkylsulfonyloxy group.

8. A process for producing a carbostyryl derivative according to Claim 6, wherein X in the tetrazole derivative represented by general formula (III) is a chlorine atom.

9. A process for producing a carbostyryl derivative according to Claim 1, wherein said phase transfer catalyst is a quaternary ammonium salt substituted with a residue selected from the group consisting of straight or branched chain alkyl groups having 1-18 carbon atoms, phenyl lower alkyl groups and phenyl groups, a phosphonium salt substituted with a straight or branched chain alkyl group having 1-18 carbon atoms, or a pyridinium salt substituted with a straight or branched chain alkyl group having 1-18 carbon atoms, and the salt-forming ion in these salts is a hydroxyl ion, a hydrogen sulfate ion or a halogen ion.

10. A process for producing a carbostyryl

derivative according to Claim 9, wherein said phase transfer catalyst is a quaternary ammonium salt substituted with a residue selected from the group consisting of straight or branched chain alkyl groups having 1-18 carbon atoms, phenyl lower alkyl groups and phenyl groups, and the salt forming ion in these said salt is a halogen ion.

11. A process for producing a carbostyryl derivative according to Claim 10, wherein said phase transfer catalyst is a quaternary ammonium salt substituted with a straight or branched chain alkyl group having 1-18 carbon atoms.

12. A process for producing a carbostyryl derivative according to Claim 10, wherein said salt-forming ion in the salt is a chlorine ion.

13. A process for producing a carbostyryl derivative according to Claim 10, wherein said phase transfer catalyst is tetrabutylammonium chloride.

14. A process for producing a carbostyryl derivative according to Claim 13, wherein said phase transfer catalyst is used in an amount of 0.1 to 1 mol per mol of the compound of general formula (II).

15. A process for producing a carbostyryl derivative according to Claim 14, wherein said phase transfer catalyst is used in an amount of 0.1 to 0.5 mol per mol of the compound of general formula (II).

16. A process for producing a carbostyryl derivative according to Claim 1, which is a process for

producing 6-[4-(1-cyclohexyl-1,2,3,4-tetrazol-5-yl)butoxy]-3,4-dihydrocarbostyryl.